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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/315,973 | 05/21/1999 | SHASHANK MERCHANT | 50100-783 | 7187 |

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| EXAMINER |
|---|
| LY, ANH VU H |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2667 | |

DATE MAILED: 01/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) |
|---|---|---|
| **Office Action Summary** | 09/315,973 | MERCHANT ET AL. |
| | Examiner | Art Unit | |
| | Anh-Vu H Ly | 2667 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on <u>02 September 2004</u>.

2a)☒ This action is **FINAL**.  2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) <u>1-9,11-14 and 16-19</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) <u>14 and 16-19</u> is/are allowed.

6)☒ Claim(s) <u>1</u> is/are rejected.

7)☒ Claim(s) <u>2-9 and 11-13</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All  b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

## DETAILED ACTION

### *Response to Amendment*

1.      This communication is in response to applicant's amendment filed September 02, 2004.

Claims 1-9, 11-14, and 16-19 are pending.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.      Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Murthy et al (US

Patent No. 5,515,376).

With respect to claim 1, Murthy discloses in Fig. 1, a multi-port bridge comprising

plurality of ports for transmitting and receiving data packets (a plurality of ports for receiving

and transmitting data packets). Murthy discloses (col. 10, lines 49-54) that packet forwarding is

the process by which a received packet is transmitted on one or more ports 3. While the

forwarding decisions are made primarily by the Main CPU, the port controllers 37 and the I/O

CPU 43 also participate in the mechanics of forwarding (a decision making engine responsive to

received data packets for directing the received data packets to the ports selected for transmission

of the received data packets).

Murth discloses (col. 10, lines 32-45) that packets received from the ports are stored in

the share memory 39, which is based on a 1.5 Mbyte array of SRAMs. The configured array has

an aggregate bandwidth of 400 Mbytes/second. Shared memory is made available to the port

controllers 37, the Main CPU 42, and the I/O CPU 43 via the shared memory interface 38 (Fig.

6). Each Port controller 37 is allocated 32 Kbytes of shared memory for receive packets and 64

Kbytes of shared memory for transmitted packets. Herein, the shared memory 39 illustrated in

Fig. 6 should be understood as memory being shared between the port controllers, Main CPU 42,

and I/O CPU 43 not among the ports. A number of Kbytes in the shared memory has been

reserved or allocated specifically for each port controller for storing the received packets and

transmitted packets (a plurality of queuing devices corresponding to plurality of ports for

queuing data blocks representing data packets received by the corresponding ports).

Murthy discloses (col. 12, line 62 – col. 13, line 1) that the Main CPU 42 periodically

polls all RDRS 72 to determine if any queued packets are to be forwarded. Based on the SA 16

and DA 15 fields of the packet 13 and upon the port number of the RDR 72, on which the packet

is queued, the Main CPU will carry out the Forwarding Algorithm as in Fig. 16. The result of

this process will be an XMASK value 55 designating the port or ports to which the packet 13 is

to be forwarded (logic circuitry responsive to plurality of queuing devices for processing the data

blocks in accordance with a prescribed algorithm to determine destination information).

Murthy discloses (col. 13, lines 9-25) that I/O CPU 43 will scan the RDRs 72 to

determine if any Packet Descriptor 48 are in a "Forwarded" state 67. When such a Packet

Descriptor 49 is found, it will be copied to each TDR 71 as indicated by the set bits in the

associated XMASK value 55 (a forwarding circuit responsive to the logic circuitry for

identifying at least one transmit port).

Murthy discloses (col. 18, lines 18-35) port monitoring process wherein packets arriving

at the bridge or generated internally may be copied to one of more monitoring ports 10 (Fig. 1) (a

traffic capture mechanism for enabling one port of plurality of ports to output data transferred via

multiple other selected ports of plurality of ports).

### Allowable Subject Matter

3.      Claims 2-9 and 11-13 are objected to as being dependent upon a rejected base claim, but

would be allowable if rewritten in independent form including all of the limitations of the base

claim and any intervening claims.

4.      Claims 14 and 16-19 are allowed.

The following is an examiner's statement of reasons for allowance:

The prior art does not teach or fairly suggest wherein the step of identifying at least one

port for transmitting data packets comprises determining whether a port that received a data

packet is one of the multiple sniffed ports, as specified in independent claim 14.

### Response to Arguments

5.      Applicant's arguments filed September 02, 2004 have been fully considered but they are

not persuasive.

Applicant argues on page 7 that examiner did not point out specifically which elements of

Murthy correspond to the claimed plurality of queuing devices corresponding to the plurality of

ports for queuing data blocks representing the data packets received by the corresponding ports.

Instead, the examiner asserts that a number of Kbytes in the shared memory is reserved or

allocated for each port controller for storing the received packets and transmitted packets.

Examiner respectfully disagrees.  Applicant should understand that, as clearly stated by the

examiner, memory is reserved or allocated for each port controller for storing

received/transmitted packets.  This implies that each of the port controllers stores the data

packets as it receives the data packets at its port. Herein, port controllers are the queuing devices

as claimed by the applicant in claim 1.

Applicant further argues on page 8, that Murthy does not disclose the claimed logic

circuitry responsive to the plurality of queuing devices for processing the data blocks in

accordance with a prescribed algorithm to determine destination information. Examiner

respectfully disagrees. Murthy discloses (col. 12, line 62 – col. 13, line 1) that the Main CPU 42

periodically polls all RDRS 72 to determine if any queued packets are to be forwarded. Based

on the SA 16 and DA 15 fields of the packet 13 and upon the port number of the RDR 72, on

which the packet is queued, the Main CPU will carry out the Forwarding Algorithm as in Fig. 16.

The result of this process will be an XMASK value 55 designating the port or ports to which the

packet 13 is to be forwarded (logic circuitry responsive to plurality of queuing devices for

processing the data blocks in accordance with a prescribed algorithm to determine destination

information).

### Conclusion

6.      **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

7.      Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Anh-Vu H Ly whose telephone number is 571-272-3175.  The

examiner can normally be reached on Monday-Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chi Pham can be reached on 571-272-3179.  The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system.  Status information for published applications

may be obtained from either Private PAIR or Public PAIR.  Status information for unpublished

applications is available through Private PAIR only.  For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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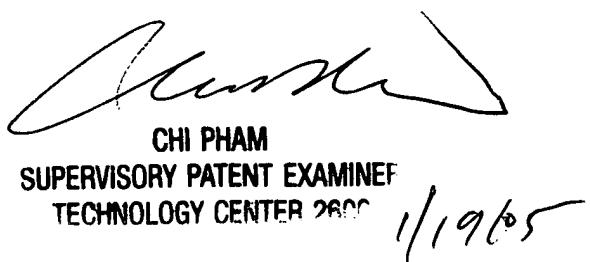
**CHI PHAM**
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